

CLAIMS

1. A surface-carbonitrided stainless steel part excellent in wear resistance, in which 3 to 20 mass % of Mn is contained in the steel and a surface of the steel was carbonitrided to be hardened, wherein a Vickers hardness of the surface is 1350 HV or more and a depth of a hardened layer having 1000 HV or more from the surface of said steel is 10 μm or more.
2. A manufacturing method of a surface-carbonitrided stainless steel part excellent in wear resistance according to claim 1, wherein after a stainless steel part containing 3 to 20 mass % of Mn, molded in a required shape, was surface activated in an atmosphere containing halogen gas or halide gas, the obtained stainless steel part is carbonitrided at 430 to 600 $^{\circ}\text{C}$ in an atmosphere containing NH_3 and carburizing gas.